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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,556	02/05/2001	Richard A. Barry	SYCS-008	8971
959	7590	02/09/2004	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			LI, SHI K	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/777,556

Applicant(s)

BARRY ET AL.

Examiner

Shi K. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 February 2001 and 31 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. FIG. 1, FIG. 2, FIG. 5A, FIG. 5B and FIG. 6 are objected to under 37 CFR 1.84(o) because there are no descriptive legends for the boxes. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

2. The disclosure is objected to because of the following informalities: on page 6, line 25, "transmitter 36" should read "transmitter 37" and line 27, "receiver 37" should read "receiver 36".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 10-11, 15-17, 22-24, 30-32, 39-40 and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admission (admitted prior art) in view of Canoglu et al. (U.S. Patent 6,407,838 B1).

Regarding claims 1, 10, 15-17, 22, 30, 39-40 and 45-47, Admission teaches in page 1, lines 18-20 that WDM channels are organized into discrete bands. Admission discloses in FIG. 3 (prior art) a node with a plurality of modules for dropping and adding a set of wavelengths

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wherein the set includes wavelengths from different bands. The difference between Admission and the claimed invention is that Admission uses a plurality of modules instead of an add/drop filter. Canoglu et al. teaches in FIG. 6 an add/drop module that can be used at a node in an optical communication network such as shown in FIG. 7. The module of FIG. 6 of Canoglu et al. comprises a plurality of thin film filters 28, 30, 32 and 34 that can be used to add/drop any wavelengths. One of ordinary skill in the art would have been motivated to combine the teaching of Canoglu et al. with the node of FIG. 3 of Admission because the module of Canoglu et al. is compact and reconfigurable. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the module of Canoglu et al. in the node of FIG. 3 of Admission for adding and dropping wavelength channels from different bands because the module of Canoglu et al. is compact and reconfigurable.

Regarding claims 2-3, 23-24 and 31-32, the thin film filters of Canoglu et al. are of fixed wavelengths and therefore are predetermined and independent of traffic.

Regarding claim 11, Canoglu et al. teaches in FIG. 2 to use thin-film filters.

5. Claims 4-5, 25 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admission and Canoglu et al. as applied to claims 1-3, 10-11, 15-17, 22-24, 30-32, 39-40 and 45-47 above, and further in view of Hutchison et al. (U.S. Patent 6,687,463 B1).

Admission and Canoglu et al. have been discussed above in regard to claims 1-3, 10-11, 15-17, 22-24, 30-32, 39-40 and 45-47 above. The difference between Admission and Canoglu et al. and the claimed invention is that Admission and Canoglu et al. do not teach extra wavelengths for future growth. Hutchison et al. suggests in col. 1, line 34 that if extra-unused wavelengths are provided initially, future growth can be achieved without interruption. One of ordinary skill

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in the art would have been motivated to combine the teaching of Hutchison et al. with the modified node of Admission and Canoglu et al. because providing extra-unused wavelength allows future growth to be achieved smoothly without interruption of service. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide extra unused wavelength channels initially, as suggested by Canoglu et al., in the modified node of Admission and Canoglu et al. because providing extra unused wavelength allows future growth to be achieved smoothly without interruption of service.

Regarding claim 5, Canoglu et al. teaches in FIG. 2 to use thin-film filters. Admission teaches in FIG. 3 to include receivers for converting optical signal to electrical signal.

6. Claims 6-9, 12-14, 18-21, 26-29, 35-38, 41-44 and 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admission and Canoglu et al. as applied to claims 1-3, 10-11, 15-17, 22-24, 30-32, 39-40 and 45-47 above, and further in view of Wu et al. (U.S. Patent 6,687,463 B1).

Admission and Canoglu et al. have been discussed above in regard to claims 1-3, 10-11, 15-17, 22-24, 30-32, 39-40 and 45-47 above. The difference between Admission and Canoglu et al. and the claimed invention is that Admission and Canoglu et al. do not teach the number of wavelengths to be added and dropped from each band. It is understood that the number of wavelengths to be added and dropped is a design parameter depends on the traffic for the particular site as Canoglu et al. suggests in col. 2, line 66-col. 3, line 3 that the number of channels to be dropped can be any number. Since the filters of Canoglu et al. are such that each filter reflects a specific wavelength and pass all other wavelengths, which channel to be added and dropped and the sequence to be added and dropped are completely flexible. Wu et al. further

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discloses in FIG. 1 an add/drop arrangement where odd number channels i.e., channels 1, 3, 5, 7, ... are added and dropped. If a band consists of 2 channels, Wu et al. adds/drops one channel from each band; if a band consists of 4 channels, Wu et al. adds/drops two channels from each band. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to add/drop any channels from any bands, as suggest by Canoglu et al. and Wu et al., in the modified node of Admission and Canoglu et al. because such flexibility simplifies wavelength assignment for the network.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fatehi et al. (U.S. Patent 6,519,064) discloses a scalable add/drop architecture using filter packs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 703 305-4341. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 703 305-4729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

  
JASON CHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2300

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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